# Industrial Hazards and Disasters



Looking at Chemical Security through the Lens of Emergency Management Research

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# Preview

- Industrial hazards and disasters
- Chemical security
- Prevention and Protection
- Mitigation, preparedness, response and recovery
- Concluding observations



## **Industrial Hazards**

"Threats to people and life-support systems that arise from the mass production of goods and services. When these threats exceed human coping capabilities or the absorptive capacities of environmental systems they give rise to industrial disasters" (Mitchell 1996).



### **Industrial Disasters**

- Types and examples
- Relation to the industrial process
- Occurrence at the intersection of people, property and product









# **Chemical Security**

 Theft, diversion, sabotage, violence and terrorism are additional concerns





### Prevention and Protection

- Recognize threats and take appropriate action as needed
- Control access to sensitive areas



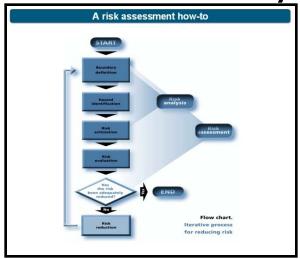






# Mitigation

- Ensure careful engineering of plants
- Complete a thorough risk assessment and publicize findings
- Follow established safety protocols





# Preparedness

- Understand the debate about planning assumptions
- Avoid the paper plan syndrome





## Response



- Implement the plan/plan to improvise
- Perform routine emergency functions
- Anticipate large media presence and prolonged community interest
- Avoid denial and minimization
- Share information judiciously



## Recovery

- Expect the placement of blame and lawsuits
- The best time to implement change





# **Concluding Thoughts**

 The challenge of integrating homeland security and emergency management priorities and practices



### **Picture Citations**

- http://www.google.com/#hl=en&sclient=psy-ab&q=picture+of+industrial+disaster&gs\_l=hp.3..0i30.9828.9828.1.10265.1.1.0.0.0.109.109.0j1.1.0...0.0.3-XehMWpabk&pbx=1&bav=on.2,or.r qc.r pw.r qf.,cf.osb&fp=3ddc6ee7f452a242&biw=1600&bih=971
- http://www.google.com/search?q=picture+of+industrial+hazard&hl=en&prmd=imvns&tbm=isch&tbo=u&source=univ&sa=X&ei=9-X-T7HYBJGC8QSvqJn7Bq&ved=0CD8QsAQ&biw=1600&bih=971
- http://www.google.com/search?q=picture+of+industrial+hazard&hl=en&prmd=imvns&tbm=isch&tbo=u&source=univ&sa=X&ei=9-X-T7HYBJGC8QSvgJn7Bg&ved=0CD8QsAQ&biw=1600&bih=971#hl=en&tbm=isch&sa=1&q=picture+of+terrorist+attack+on+industry&oq=picture+of+terrorist+attack+on+industry&gs\_l=img,3...65993.70533.0.70782.29.6.0.22.22.0.172.703.4j2.6.0...0.0.j0TDcHUQuLA&bav=on.2,or.r\_qc.r\_pw.r\_qf,,cf.osb&fp=c5d5c8b25121b087&biw=1600&bih=971
- http://www.fotosearch.com/photos-images/industrial-facility-gates.html
- http://images.search.yahoo.com/images/view?back=http%3A%2F%2Fsearch.yahoo.com%2Fsearch%3Fei%3DUTF-8%26p%3Dindustrial%2Bfacility%2Bsecurity%2Bpictures&w=160&h=136&imgurl=www.bing.com%2Fimages%2Fsearch%3Fq%3Dindustrial%2Bfacility%2Bsecurity%2Bpictures%23focal%3D8a3cf8e7ec14904f81653656191451d2%26furl%3Dhttp%253a%252f%252fwww.globalshieldsecurity.com%252fwp-content%252fuploads%252f2010%252f12%252fIndustrial-facility-security-quards-
  - 300x255.jpg&size=&name=search&rcurl=http%3A%2F%2Fwww.bing.com%2Fimages%2Fsearch%3Fq%3Dindustrial%2Bfacility%2Bsecurity%2Bpictures%23focal%3D8a3cf8e7ec149 04f81653656191451d2%26furl%3Dhttp%253a%252f%252fwww.globalshieldsecurity.com%252fwp-content%252fuploads%252f2010%252f12%252f1ndustrial-facility-security-guards-
  - 300x255.jpg&rurl=http%3A%2F%2Fwww.bing.com%2Fimages%2Fsearch%3Fq%3Dindustrial%2Bfacility%2Bsecurity%2Bpictures%23focal%3D8a3cf8e7ec14904f81653656191451d2 %26furl%3Dhttp%253a%252f%252fwww.globalshieldsecurity.com%252fwp-content%252fuploads%252f2010%252f12%252fIndustrial-facility-security-guards-300x255.jpg&p=industrial+facility+security&type=&no=1&tt=112&oid=http%3A%2F%2Fts1.mm.bing.net%2Fimages%2Fthumbnail.aspx%3Fq%3D5011780765025120%26id%3D12 7ed2ba046c43622a455e0b3371583c&tit=Industrial+Facility+Security+Guards+prevent+terror+attacks+%7C+Global+...&sigr=17k72g7nm&sigi=17dp0228i&sigb=12fh10uov&fr=mcs aoffblock
- http://images.search.yahoo.com/images/view?back=http%3A%2F%2Fsearch.yahoo.com%2Fsearch%3Fei%3DUTF-8%26p%3Dpicture%2Bof%2Brisk%2Bassessment&w=160&h=138&imgurl=www.bing.com%2Fimages%2Fsearch%3Fq%3Dpicture%2Bof%2Brisk%2Bassessment%23focal%3D94375bc614c404218d9d4e8b3de9f18b%26furl%3Dhttp%253a%252f%252fwww.gl
  - group.com%252fpdf%252friskassessment\_howto.jpg&size=&name=search&rcurl=http%3A%2F%2Fwww.bing.com%2Fimages%2Fsearch%3Fq%3Dpicture%2Bof%2Brisk%2Bassessment%23focal%3D94375bc614c404218d9d4e8b3de9f18b%26furl%3Dhttp%253a%252f%252fwww.ql-
  - group.com%252fpdf%252friskassessment\_howto.jpg&rurl=http%3A%2F%2Fwww.bing.com%2Fimages%2Fsearch%3Fq%3Dpicture%2Bof%2Brisk%2Bassessment%23focal%3D9437 5bc614c404218d9d4e8b3de9f18b%26furl%3Dhttp%253a%252f%252fwww.ql-
  - $group.com\%252 fpdf\%252 friskassessment\_howto.jpg\&p=risk+assessment\&type=\&no=3\&tt=114\&oid=http\%3A\%2F\%2Fts2.mm.bing.net\%2Fitnages\%2Fthumbnail.aspx\%3Fq\%3D506\\2753453802729\%26 id%3Dc836c9aa756e57 fe45af3ec0dced5698\&tit=Risk+Assessment+++GL+++redirects+\%5BGL+-+Maritime\%5D+Renewables+-$
  - +CE+...&sigr=159l1fqk7&sigi=152eg6512&sigb=124pmgavn&fr=mcsaoffblock
- http://images.search.yahoo.com/search/images? adv prop=image&fr=mcsaoffblock&sz=all&va=disaster+plan

# Thank you!

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